

Trying 3106016892...Open

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PASSWORD:

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SESSION RESUMED IN FILE 'HOME' AT 09:30:26 ON 19 NOV 2001

FILE 'HOME' ENTERED AT 09:30:26 ON 19 NOV 2001

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.45	0.45

=> file medline

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.60	0.60

FILE 'MEDLINE' ENTERED AT 09:30:45 ON 19 NOV 2001

FILE LAST UPDATED: 15 NOV 2001 (20011115/UP). FILE COVERS 1958 TO DATE.

On April 22, 2001, MEDLINE was reloaded. See HELP RLOAD for details.

MEDLINE now contains IN-PROCESS records. See HELP CONTENT for details.

MEDLINE is now updated 4 times per week. A new current-awareness alert frequency (EVERYUPDATE) is available. See HELP UPDATE for more information.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2001 vocabulary. Enter HELP THESAURUS for details.

The OLDMEDLINE file segment now contains data from 1958 through 1965. Enter HELP CONTENT for details.

Left, right, and simultaneous left and right truncation are available in the

Basic Index. See HELP SFIELDS for details.

THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE SUBSTANCE IDENTIFICATION.

=> diisocyanate/ct

DIISOCYANATE IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter

"HELP COMMANDS" at an arrow prompt (=>).

=> s diisocyanate/ct

L1 0 DIISOCYANATE/CT

=> file embase biosis biotechds scisearch hcaplus ntis lifesci medline

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	1.80	2.40

FILE 'EMBASE' ENTERED AT 09:34:00 ON 19 NOV 2001

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FILE 'MEDLINE' ENTERED AT 09:34:00 ON 19 NOV 2001

=> s diisocyanate/ct

'CT' IS NOT A VALID FIELD CODE  
'CT' IS NOT A VALID FIELD CODE  
7 FILES SEARCHED...  
L2 187 DIISOCYANATE/CT

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	7.56	9.96

FILE 'CAPLUS' ENTERED AT 09:34:57 ON 19 NOV 2001  
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FILE COVERS 1947 - 19 Nov 2001 VOL 135 ISS 22  
FILE LAST UPDATED: 18 Nov 2001 (20011118/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

CAPLUS now provides online access to patents and literature covered in CA from 1947 to the present. On April 22, 2001, bibliographic information and abstracts were added for over 2.2 million references published in CA from 1947 to 1966.

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=> d his

(FILE 'HOME' ENTERED AT 09:28:19 ON 19 NOV 2001)

FILE 'MEDLINE' ENTERED AT 09:30:45 ON 19 NOV 2001

L1 0 S DIISOCYANATE/CT

FILE 'EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS, LIFESCI,  
MEDLINE' ENTERED AT 09:34:00 ON 19 NOV 2001

L2 187 S DIISOCYANATE/CT

FILE 'CAPLUS' ENTERED AT 09:34:57 ON 19 NOV 2001

=> e diisocyanate/ct

E#	FREQUENCY	AT	TERM
--	-----	--	----
E1	0	4	DIISOBUTYLAMINE/CT
E2	0	8	DIISOBUTYLENE/CT
E3	0	1 -->	DIISOCYANATE/CT
E4	0	1	DIISOCYANATE-/CT
E5	0	1	DIISOCYANATE-BASED/CT
E6	0	1	
DIISOCYANATE-CYCLOHEXANEDIMETHANOL-POLYCAPROLACTONE/CT			
E7	0	1	DIISOCYANATE-DIAMINOPROPANE-POLYTETRAMETHYLENE/CT
E8	0	1	DIISOCYANATE-EPICHLOROHYDRIN-ETHYLENE/CT
E9	0	1	DIISOCYANATE-EPICHLOROHYDRIN-PROPYLENE/CT
E10	0	1	DIISOCYANATE-EPOL-ETHYLHEXANEDIOL/CT
E11	0	1	DIISOCYANATE-ETHANOLAMINE-POLYETHYLENE/CT
E12	0	1	DIISOCYANATE-ETHOXYLATED/CT

=> e e2+all

E1	28833	BT4	Organic compounds/CT
E2	78467	BT3	Hydrocarbons/CT
E3	28833	BT4	Organic compounds/CT
E4	1757	BT3	Unsaturated compounds/CT
E5	54646	BT2	Alkenes/CT
E6	87	BT1	Isoalkenes/CT
E7	0	-->	Diisobutylene/CT
E8		UF	Pentene, 2,4,4-trimethyl-/CT
***** END***			

=> e ?cyanate/ct

E#	FREQUENCY	AT	TERM
--	-----	--	----
E1	0	1	9Z -1-( 1S -4-CARBOXY-1-HYDROXYBUTYL)-2,4,6,9-PENTADEC ATETRAENYL)-L-CYSTEINYL-/CT
E2	0	1	9Z -1-( 1S -4-CARBOXY-1-HYDROXYBUTYL)-2,4,6,9-PENTADEC ATETRAENYL)-L-CYSTEINYL-4 RECEPTORS/CT
E3	0	-->	?CYANATE/CT
E4	0	2	A 05040/CT
E5	0	2	A 1/CT
E6	0	2	A 1 (MICA)/CT
E7	0	2	A 1 (PHASE TRANSFER CATALYST)/CT
E8	0	2	A 10/CT
E9	0	2	A 10 (ACTIVATED FIBER)/CT
E10	0	2	A 10 (PITCH-BASED FIBER)/CT
E11	0	2	A 100/CT
E12	0	2	A 101/CT

=> e peg/ct

E#	FREQUENCY	AT	TERM
--	-----	--	----
E1	0	20	PEFLOXACIN/CT
E2	0	1	PEFRICOLA/CT

E3	0	2	PEG/CT
E4	21	10	PEGANUM/CT
E5	129	9	PEGANUM HARMALA/CT
E6	3	8	PEGANUM MULTISECTUM/CT
E7	11	8	PEGANUM NIGELLASTRUM/CT
E8	0	10	PEGASIDAE/CT
E9	0	2	PEGASIN/CT
E10	0	1	PEGASOL/CT
E11	0	2	PEGASOL 3040/CT
E12	0	2	PEGASUS/CT

=> e polyethylene glycol/ct

E#	FREQUENCY	AT	TERM
---	-----	---	----
E1	0	2	POLYETHYLENE FIBERS (L) ETHYLENE-PROPENE/CT
E2	0	2	POLYETHYLENE FIBERS, FLUORO/CT
E3	0	10	--> POLYETHYLENE GLYCOL/CT
E4	0	2	POLYETHYLENE GLYCOL (400) ESTERS OF COCONUT OIL FATTY ACIDS/CT
E5	0	4	POLYETHYLENE GLYCOL ALKYL ETHER ACRYLATE-CONTG. ACRYLI
E6	1		C FIBERS/CT
E7	0	8	POLYETHYLENE GLYCOL AMINOPHENYLTHIOETHYL GROUP/CT
E8	0	2	POLYETHYLENE GLYCOL DIACRYLATE/CT
E9	0	3	POLYETHYLENE GLYCOL DIESTER OF TALL OIL ACIDS/CT
FIBER/			POLYETHYLENE GLYCOL DIGLYCIDYL ETHER-VINYL ALC.
E10	0	11	CT
E11	0	12	POLYETHYLENE GLYCOL DIMETHACRYLATE/CT
E12	0	9	POLYETHYLENE GLYCOL DIMETHACRYLATE, SRU/CT
			POLYETHYLENE GLYCOL DIMETHYL ETHER/CT

=> e e3+all

E1	28833	BT4	Organic compounds/CT
E2	18249	BT3	Ethers/CT
E3	6820	BT4	Macromolecular compounds/CT
E4	114500	BT3	Polymers/CT
E5	34577	BT2	Polyethers/CT
E6	44087	BT1	Polyoxyalkylenes/CT
E7	0	-->	Polyethylene glycol/CT
E8		UF	PEG/CT
E9		UF	Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-/CT
E10	843	RT	Humectants/CT
*****	END***		

=> s polyethers or macromolecular compopund? or polyether? or polyoxalkylenes or polymer?

40796 POLYETHERS  
(POLYETHERS OR POLYETHERSES)  
14218 MACROMOLECULAR  
(MACROMOLECULAR OR MACROMOLECULARS)  
53277 MACROMOL  
(MACROMOL OR MACROMOLS)  
57422 MACROMOLECULAR  
(MACROMOLECULAR OR MACROMOL)  
0 MACROMOLECULAR COMPOPUND?  
(MACROMOLECULAR (W) COMPOPUND?)  
11 POLYOXALKYLENES  
(POLYOXALKYLENES OR POLYOXALKYLENESES)  
69943 POLYMD  
(POLYMD OR POLYMDS)  
24949 POLYMG  
(POLYMG OR POLYMGS)  
263386 POLYMN  
(POLYMN OR POLYMNS)  
1434093 POLYMER?

(POLYMER? OR POLYMD OR POLYMG OR POLYMN)  
L3 1456875 POLYETH OR MACROMOLECULAR COMPOPUND? POLYETHER? OR  
POLYOXA

LKYLENES OR POLYMER?

=> S L3 AND ?CYANAT?

L4 63160 L3 AND ?CYANAT?

=> S L4 AND DISOCYANAT?

L5 40 L4 AND DISOCYANAT?

=> S L5 AND peg

22079 PEG

(PEG OR PEGS)

L6 0 L5 AND PEG

=> S L5 AND GLYCOL

273373 GLYCOL

(GLYCOL OR GLYCOLS)

L7 22 L5 AND GLYCOL

=> D 1-22 IBIB AB

L7 ANSWER 1 OF 22 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:672671 CAPLUS

DOCUMENT NUMBER: 131:287510

TITLE: Abrasive article with tie coat and method

INVENTOR(S): Kincaid, Don H.; Culler, Scott R.; Krepski, Larry  
R.;

Mickus, Daniel E.

PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Company, USA

SOURCE: PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
WO 9952676	A1	19991021	WO 1999-US6828	19990329
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 6139594	A	20001031	US 1998-59118	19980413
AU 9932138	A1	19991101	AU 1999-32138	19990329
EP 1071539	A1	20010131	EP 1999-914249	19990329
R:	DE, FR, GB			

PRIORITY APPLN. INFO.: US 1998-59118 A 19980413  
WO 1999-US6828 W 19990329

AB An abrasive article is provided that includes a tie coat which improves  
adhesion between an abrasive layer and a backing in the abrasive  
article.

The tie coat is preferably formed from a tie coat precursor comprising a sulfopoly(ester-urethane) component comprising in its backbone at least one non-terminal arylene or alkylene group comprising a pendant sulfonic acid group or salt, said aliph. or arom. group being bonded directly to ester groups and wherein the **polymer** is terminated by at least one hydrolyzable silyl group. Preferably, the abrasive article is a structured abrasive article. Also provided is a method for making an abrasive article.

REFERENCE COUNT: 10  
REFERENCE(S): (1) Chang, J; US 3941733 A 1976 CAPLUS  
(2) Minnesota Mining & MFG; WO 9413723 A 1994  
CAPLUS  
(3) Minnesota Mining & MFG; WO 9703101 A 1997  
CAPLUS  
(4) Muelhaupt, R; US 4772716 A 1988 CAPLUS  
(10) Yokohama Rubber Co Ltd: The; JP 07138336 A  
1995,  
V095(008) CAPLUS  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2001 ACS  
ACCESSION NUMBER: 1994:280160 CAPLUS  
DOCUMENT NUMBER: 120:280160  
TITLE: Synthesis and nonthrombogenicity of fluoroalkyl  
**polyether**-urethanes  
AUTHOR(S): Kashiwagi, Takashi; Ito, Yoshihiro; Imanishi,  
Yukio  
CORPORATE SOURCE: Dep. Polym. Chem., Kyoto Univ., Kyoto, 606-01,  
Japan  
SOURCE: J. Biomater. Sci., Polym. Ed. (1993), 5(1-2),  
157-66  
CODEN: JBSEEA; ISSN: 0920-5063  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB New **polyetherurethanes** carrying fluoroalkyl substituents in the  
side chains were prep'd. from  
N,N-bis(hydroxyethyl)heptadecafluorooctylsulf  
onamide (a chain extender), 4,4'-**disocyanatodiphenylmethane**, and  
poly(tetramethylene **glycol**). Various kinds of **polyether**  
-urethanes having different tensile properties were prep'd. by  
changing the  
content of fluoroalkyl chain extender or the mol. wt. of  
poly(tetramethylene **glycol**). The surface of a film made from  
the fluoroalkyl **polyether**-urethane was strongly water-repulsive.  
The in vitro thrombus formation on the fluoroalkyl **polyether**  
-urethanes was reduced by increasing the content of chain extender  
for the  
same mol. wt. of poly(tetramethylene **glycol**). Protein  
adsorption, platelet adhesion, and platelet activation on the  
fluoroalkyl  
**polyether**-urethanes were also investigated.

L7 ANSWER 3 OF 22 CAPLUS COPYRIGHT 2001 ACS  
ACCESSION NUMBER: 1991:196217 CAPLUS  
DOCUMENT NUMBER: 114:196217  
TITLE: Kinetic and sensitometric characteristics of  
statistical **polymerizing** multifunctional  
oligourethanes  
AUTHOR(S): Maslyuk, A. F.; Khranovskii, V. A.; Sopina, I. M.;  
Bereznitskii, G. K.; Kercha, S. F.  
CORPORATE SOURCE: Inst. Khim. Vysokomol. Soedin., Kiev, USSR  
SOURCE: Zh. Nauchn. Prikl. Fotogr. Kinematogr. (1991),  
36(1),  
46-50  
CODEN: ZNPFAG; ISSN: 0044-4561  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian

AB Kinetics and sensitometric properties of layer-by-layer photopolymn.  
 in bulk multifunctional oligourethane were detd. Oligourethane synthesis included formation of a **macrodiisocyanate**, which initially reacted with benzoin, then with a mixt. of monomers including monomethacryl ester and higher alkyloxyethylated alc. (Os-20).  
 Extremal character of photopolymn. rate (W) and criterional photosensitivity were detd. by increase of the content of grafted surface-active (higher alkoxyethylated alc.) and photoinitiating (benzoin) groups in the oligourethane chain, when induction time sharply decreased with increase of the surface-active groups content. Max. photosensitivity of the oligourethane was obsd. at  $\lambda = 350$  nm. Layer-by-layer photopolymn. rate is described by  $W = 1.5 \cdot 10^{-4} (e^{-2.45d})^{1/2}$  (d = layer thickness).

L7 ANSWER 4 OF 22 CAPLUS COPYRIGHT 2001 ACS  
 ACCESSION NUMBER: 1988:572054 CAPLUS  
 DOCUMENT NUMBER: 109:172054  
 TITLE: Highly stretchable spandex fibers with improved stability to microbiological degradation  
 INVENTOR(S): Kausch, Michael; Sueling, Carlhans; Schroeer, Hans;  
 PATENT ASSIGNEE(S): Wolf, Karl Heinz; Dauscher, Rudi  
 SOURCE: Bayer A.-G., Fed. Rep. Ger.  
 Ger. Offen., 5 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3641703	A1	19880616	DE 1986-3641703	19861206
US 4772677	A	19880920	US 1987-124509	19871123
EP 270907	A2	19880615	EP 1987-117284	19871124
EP 270907	A3	19890614		
EP 270907	B1	19931229		
R: DE, ES, FR, GB, IT, NL				
ES 2061474	T3	19941216	ES 1987-117284	19871124
JP 63159519	A2	19880702	JP 1987-300290	19871130
JP 2587435	B2	19970305		

PRIORITY APPLN. INFO.: DE 1986-3641703 19861206  
 AB The title fibers based on segmented polyurethanes (urea) are manufd. with soft segments consisting of polyester diols and **polyether** diols, and these segments comprise 85-50:15-50 mixts. of polyester diols and polytetramethylene diols, and the polyester diols are copolyesters of adipic acid and mixts. of 2-4 different, preferably long chain diols with .gtoreq.4 C and mol. wt. 2500-4000. Thus, a polyurethane urea prepolymer was prepd. from a polyester of adipic acid, 1,6-hexanediol, and neopentyl **glycol** (mol. wt. 3231) 100, poly(tetramethylene oxide) diol (mol. wt. 2000) 5544, and diphenylmethane 4,4'-**disocyanate** 3321 kg. A mixt. of 3276 g ethylenediamine and 8.4 g diethylamine in 61.44 kg AcNMe2 was treated with 720 g CO2, 30.84 kg of the prepolymer added, and dry spun to give fibers with elastic properties equiv. to fibers made with only the polyester as the soft segment and improved elastic properties to fibers only made with polytetramethylene diol. When buried in a preconditioned potting soil for 14 days, the title fibers retained 16.9% of the max.

tensile strength, the fibers from the polyester alone was destroyed,  
and  
the fibers from the polytetramethylene diol retained 1.6%.

L7 ANSWER 5 OF 22 CAPLUS COPYRIGHT 2001 ACS  
ACCESSION NUMBER: 1988:117510 CAPLUS  
DOCUMENT NUMBER: 108:117510  
TITLE: UV-curable optical fiber coating materials  
INVENTOR(S): Kitamura, Akira  
PATENT ASSIGNEE(S): Furukawa Electric Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62209175	A2	19870914	JP 1986-50665	19860310
JP 07051454	B4	19950605		

AB The coating materials mainly comprise compds. obtained by addn. of (meth)acrylic groups via urethane bonds to mixts. of 100 parts OH-terminated low-mol. wt. polyolefin polyols, and 50-300 parts **polyether** polyols. The coatings are flexible at low temp., are resistance to heat and water, and cure rapidly. Thus, a dehydrated mixt. of low-mol. wt. polyolefin polyols (OH value 53; mol. wt. .apprx.2000) and 200 g polytetramethylene **glycol** (OH value 55; mol. wt. .apprx.2000) was treated with isophorone **diisocyanate** for 2 h and then with 2-hydroxyethyl acrylate and hydroquinone monomethyl ether acrylate to give a resin product that was mixed with Aronix M-113, TC-110S, and Irgacure 651 to give a coating material having viscosity (at 30.degree.) 8200 cP, and showing no sepn. after 1 wk at 60.degree..

L7 ANSWER 6 OF 22 CAPLUS COPYRIGHT 2001 ACS  
ACCESSION NUMBER: 1984:59628 CAPLUS  
DOCUMENT NUMBER: 100:59628  
TITLE: Silver halide sensitized, **polymerizable** light-sensitive material  
INVENTOR(S): Maeda, Minoru; Iwasaki, Masayuki; Inoue, Noriyuki; Totsuka, Mikio  
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd. , Japan  
SOURCE: Ger. Offen., 36 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3300817	A1	19830721	DE 1983-3300817	19830112
JP 58121031	A2	19830719	JP 1982-3655	19820113
JP 03073849	B4	19911125		
US 4547450	A	19851015	US 1983-457602	19830113

PRIORITY APPLN. INFO.: JP 1982-3655 19820113  
AB Printing plates with good inking and durability qualities are prepd. from a support coated with a Ag halide emulsion and an adjacent **polymerizable** layer contg. a nongaseous ethylenically unsatd. compd. which during redn. of the Ag halide forms an addn. **polymer** and a **polymn.** initiator, such as a phenolic compd. Thus, a poly(ethylene terephthalate) support was coated with a compn. comprised of benzyl methacrylate-methacrylic acid copolymer 0.8, pentaerythritol tetraacrylate 0.8, p-MeOC6H4OH 0.1, MeCOEt 14, ethylene **glycol** Me ether acetate 14, cyclohexanone 5, and C black 0.8 g. This



**polymer** layer was then coated with a Au- and S-sensitized Ag(Br,Cl,I) gelatin emulsion contg. a merocyanine, a stabilizer, a surfactant, and tolylene-2,4-**disocyanate** hardener. This structure was exposed to 200 lx of W lamp light through a step wedge for 1 s. Then, it was developed for 2 min at 40.degree. in a soln. of p-MeOC6H4OH 12, Na2SO3 7, Na2CO3 5, KBr 0.1, .beta.-acetylphenylhydrazine 0.3 g, and H2O 1 L at pH 10.2 (NaOH), and etched for 20 s in a soln. of ethylene **glycol** Bu ether 30, Na dodecylbenzenesulfonate 10, Na2SO3 2, NaOH 6 g, and H2O 1 L. After washing, a dark **polymer** image was obtained which when used as a plate in a Hamada Star 500 CD printer gave >5000 good copies.

L7 ANSWER 7 OF 22 CAPLUS COPYRIGHT 2001 ACS  
 ACCESSION NUMBER: 1980:408871 CAPLUS  
 DOCUMENT NUMBER: 93:8871  
 TITLE: Thermal stability of polyurethanes  
 AUTHOR(S): Volkova, A. V.  
 CORPORATE SOURCE: Vladimir. Gos. Pedagog. Inst., Vladimir, USSR  
 SOURCE: Deposited Doc. (1979), VINITI 1340-79, 11 pp.  
 Avail.:

VINITI  
 DOCUMENT TYPE: Report  
 LANGUAGE: Russian

AB Urethane **polymers** are in a thermodyn. nonequil. state after synthesis and their transition to the equil. state is accompanied by degrdn. of cryst. polyester blocks and crosslinks of the urethane component and in case of adipic acid-butylene **glycol** -4,4'-diphenylmethane **disocyanate** copolymer [26375-23-5] is accompanied by a degrdn. of 1 type of phys. bonds and a the formation of another type and by an increase in the amt. of cryst. blocks. Thermal cyclization is recommended for possible stabilization of polyurethane properties after their prepn.

L7 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2001 ACS  
 ACCESSION NUMBER: 1976:434766 CAPLUS  
 DOCUMENT NUMBER: 85:34766  
 TITLE: Urethane powder coating compositions  
 INVENTOR(S): Tanaka, Michio; Nasu, Koji; Mochizuki, Kazutaka  
 PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan  
 SOURCE: Japan. Kokai, 4 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 51028825	A2	19760311	JP 1974-102731	19740905
JP 59017745	B4	19840423		

AB Polyurethane powder coating compns. with low baking temp. were prepd. by mixing a distannoxane compd. with a mixt. of a .gtoreq.2 OH-contg. polyester resin and an .epsilon.-caprolactam-blocked **polyisocyanate**. Thus, 837.3 parts of a polyester obtained from a mixt. of neopentyl **glycol** 19.3, hydrogenated bisphenol A 40.9, and isophthalic acid 50.8 parts was mixed at 120.degree. with a blocked **isocyanate** compd. (obtained from a mixt. of isophorone **disocyanate** 111, .epsilon.-caprolactam 56.5, trimethylolpropane 22.4, and EtOAc 126.6 parts) 380, Dibake R-930 (?) 609, Modaflow 3.7, and 1,1,3,3-tetrabutyl-1,3-diacetoxystannoxane [5967-09-9] 2.4 parts, and the solid mixt. was ground to give an polyurethane powder coating compn. (100 .mu.), which was statically coated on a steel sheet and baked 30 min

at 140.degree. to give a glossy white coating film with pencil  
hardness  
34.

L7 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2001 ACS  
ACCESSION NUMBER: 1976:151451 CAPLUS  
DOCUMENT NUMBER: 84:151451  
TITLE: Organic **polyisocyanates**  
INVENTOR(S): Gemeinhardt, Paul G.  
PATENT ASSIGNEE(S): Mobay Chemical Co., USA  
SOURCE: U.S., 9 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3936483	A	19760203	US 1970-64091	19700728

PRIORITY APPLN. INFO.: US 1964-358633 19640409  
AB Rigid cellular, non-burning polyurethane foams were obtained from  
mixts.  
of org. **polyisocyanates**, comprising tech. TDI and  
polyphenylenepolyethylene **polyisocyanate** (I) (n = 1.1), with  
polyols. I was prepd. by phosgenating aniline-formaldehyde reaction  
product (e.g. see U.S. 2,683,730). Thus di-Et N,N-bis(2-  
hydroxyethyl)aminomethylphosphonate 20, polypropylene **glycol**  
sucrose ether (viscosity 100,000 cP at 250.degree.) 80, 50:50 I-TDI  
(20/80  
2,6-/2,4-isomer mixt.) 82.4, CFC13 30, Me2N(CH2)4NMe2 1.5, and  
siloxane  
surfactant 1.0 wt. parts were mixed and discharged into an open mold  
where  
a rigid cellular sheet was formed in about 135 sec. The foam  
[58870-73-8]  
had d. 1.6 lb/ft, compression strength at yield 20.5 psi, and was  
non-burning. Similarly, a polyester-polyurethane coating compn. was  
obtained from the above I-TDI mixt. and adipic acid-diethylene  
**glycol**-trimethylolpropane **polymer**. Other polyester- and  
**polyether**-type cellular polyurethanes were also prepd.

L7 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2001 ACS  
ACCESSION NUMBER: 1975:606989 CAPLUS  
DOCUMENT NUMBER: 83:206989  
TITLE: Hardenable compositions  
INVENTOR(S): Gruffaz, Max; Locatelli, Jean L.  
PATENT ASSIGNEE(S): Rhone-Poulenc S. A., Fr.  
SOURCE: Ger. Offen., 25 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2507342	A1	19750821	DE 1975-2507342	19750220
FR 2261298	A1	19750912	FR 1974-5717	19740220
NL 7501655	A	19750822	NL 1975-1655	19750212
JP 50151999	A2	19751206	JP 1975-19661	19750217
JP 57047693	B4	19821012		
US 4010220	A	19770301	US 1975-550733	19750218
BE 825720	A1	19750819	BE 1975-153511	19750219
SE 7501856	A	19750821	SE 1975-1856	19750219
SE 420414	B	19811005		
SE 420414	C	19820121		
DK 7500609	A	19751013	DK 1975-609	19750219
DK 142916	B	19810223		
DK 142916	C	19811005		
GB 1476034	A	19770610	GB 1975-7018	19750219

CH 594020 19771230 CH 1975-2066 19750219  
CA 1041689 19781031 CA 1975-2204 19750219

PRIORITY APPLN. INFO.: FR 1974-5717 19740220

AB Impact-resistant, thermosetting compns. contain cyclic diimides, polyamines, and urethane rubbers. Thus, a mixt. of 10 g adipic acid-ethylenediamine-ethylene **glycol**-hexamethylene **disocyanate**-1,6-hexanediol **polymer** [57350-78-4], 65 g N,N'-(methylenedi-p-phenylene)dimaleimide, and 15 g CH<sub>2</sub>(C<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>-p)<sub>2</sub> is molded 24 hr at 200.degree. and postcured 24 hr at 250.degree. to give a polyimide [26140-67-0]-rubber blend molding, impact strength 31.4 kg-cm/cm<sup>2</sup>, flexural strength 13.85 and 7.75 kg/mm<sup>2</sup> at 25 and 250.degree., resp., before, and 12.90 and 7.25 kg/mm<sup>2</sup>, resp., after 1000 hr at 250.degree..

L7 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1975:44149 CAPLUS

DOCUMENT NUMBER: 82:44149

TITLE: Thermodynamics of swelling of polyurethanes prepared in different solvents

AUTHOR(S): Dul'tseva, L. D.; Tager, A. A.; Borzikhina, T. M.

CORPORATE SOURCE: Ural. Gos. Univ. im. Gor'kogo, Sverdlovsk, USSR

SOURCE: Sint. Fiz.-Khim. Polim. (1974), 14, 77-84  
CODEN: SFKPAO

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB Polyurethane-dioxane [123-91-1] affinity and sorption of dioxane vapors

was affected by crosslink density of the **polymers**: for glassy **polymers** in the full region of the investigated pressures, and for the elastic ones only in the region of max. equil. swelling.

Sorption of

elastic polyurethanes did not depend on the nature of the solvent in which

they were synthesized, but rigid polyurethanes prepd. in ethyl methyl ketone (I) had lower sorption capacity than the more densely packed

that

were synthesized in a poor solvent cyclohexanone (II). The investigated

polyurethanes, e.g. triethylene **glycol**-trimethylenolpropane-toluene **disocyanate** copolymer [53317-59-2], were prepd. in I or II from a series of **glycols** HO(CH<sub>2</sub>CH<sub>2</sub>O)<sub>n</sub>H (n = 2, 3, 6, 8, 25, 35, and 60) and the trimethylenolpropane-toluene **diisocyanate** component.

L7 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1974:552831 CAPLUS

DOCUMENT NUMBER: 81:152831

TITLE: Crystallization of segmented poly(oxethylene)s

AUTHOR(S): Galin, Jean C.; Spegt, Pierre; Suzuki, Sunichi; Skoulios, Antoine

CORPORATE SOURCE: Cent. Rech. Macromol., CNRS, Strasbourg, Fr.

SOURCE: Makromol. Chem. (1974), 175(3), 991-1000  
CODEN: MACEAK

DOCUMENT TYPE: Journal

LANGUAGE: German

AB Polyethylene **glycol**-2,4-toluene **disocyanate** block

copolymer [37273-55-5] prepd. by condensation of **glycols** of mol. wt. 2750 and 10,600 with **diisocyanates** and consisting of 1-4

blocks had a lamellar structure and a degree of crystallinity and melting

temp. which decreased with increasing degree of condensation. The thickness of the lamellae in the 2-block **polymer** increased drastically and stepwise with crystn. temp. in the same way as the thickness increased in weakly polydisperse polyethylene **glycols**. The thickness of the lamellae in 3 and 4-block **polymers** was not affected by the crystn. temp. The differences in the effect of

crystn.

temp. on lamellar thickness were due to a blocking of the urethane groups

during the annealing process. As these groups were excluded from the  
cryst. domains they played the same role as end groups of the chains

in

polyethylene glycols.

L7 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2001 ACS  
ACCESSION NUMBER: 1968:478126 CAPLUS  
DOCUMENT NUMBER: 69:78126  
TITLE: Polyurethane constrained-layer vibration dampers  
PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co.  
SOURCE: Brit., 18 pp.  
CODEN: BRXXAA  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1119067		19680703		

PRIORITY APPLN. INFO.: US 19641109  
AB Economical materials, which have a high dielec. loss tangent and are  
suitable for constrained-layer vibration damping, consist of  
polyurethanes  
prepd. by treating an aromatic **disocyanate** with polypropylene  
**glycol** (I). Thus, a mixt. of 45.3 parts toluene  
**diisocyanate** (II) (4:1 ratio of 2,4- and 2,6-isomers) was stirred  
under N for 18 hrs. at 80.degree. with 100 parts I to give an  
NCO-contg.  
compn. (A). A (50 parts) was stirred at 60.degree. with 4.03 parts  
1,3-butanediol and 0.75 part 1,1,1-trimethylolpropane and the mixt.  
was  
degassed for 10-15 sec. in vacuo. The mixt. was cured for 20 hrs. at  
100.degree. to give a product having Shore A hardness 59, Yertzley  
resilience (5 Hz.) <15%, Bashore Rebound (120 Hz.) of 7%, and a loss  
tangent of 1.2 at 100 Hz. as measured on a Fitzgerald Transducer. A  
constrained-layer laminate composed of a 1/16-in. layer of this  
**polymer** adhered by Eastman 910 cement between a 1/8-in.  
stainless-steel panel and a 1/16-in. Al panel and had a very small  
vibration amplitude at 58 Hz. and 25.degree., as compared with that  
of the  
original undamped stainless-steel panel. Ring-dichlorinated II,  
methylenebis(4-phenyl **isocyanate**), 1,5-naphthylene  
**diisocyanate**, and p-phenylene **diisocyanate** may be used  
instead of II and polytetramethylene **glycol** and poly(ethylene  
adipate) **glycol** instead of I.

L7 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2001 ACS  
ACCESSION NUMBER: 1968:468011 CAPLUS  
DOCUMENT NUMBER: 69:68011  
TITLE: Microporous polyurethane films permeable to water  
vapor  
INVENTOR(S): Reischl, Artur; Traubel, Harro; Zorn, Bruno  
PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.  
SOURCE: Brit., 11 pp.  
CODEN: BRXXAA  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1123292		19680814		

PRIORITY APPLN. INFO.: DE 19660103  
AB Supported or unsupported microporous films permeable to H2O vapor are  
prepd. from a colloidal soln. in an org. solvent of a high-mol.-wt.  
**isocyanate** polyaddn. product, an addnl. **polyisocyanate**,  
optionally with HCHO, a HCHO donor, and a peroxide, and also  
optionally  
with a compd. or **polymer** which reacts with the

**isocyanates** in an org. nonsolvent for the polyaddn product. The soln. is spread on substrate, the solvents evaporate consecutively, and the microporous film formed transferred to a porous substrate with a noncontinuous adhesive layer. The polyadduct was prepd. from a mixed polyester of mol. wt. 1870, of 2,2-dimethyl-1,3-propanediol, 1,6-hexanediol, and adipic acid (I) with diphenylmethane-4,4'-**diisocyanate** (II) and 1,4-butanediol (III) in EtOAc, tetrahydrofuran (IV), MeCOEt, CH<sub>2</sub>Cl<sub>2</sub>, or a 95% aq. soln. of IV. Other polyaddn. products were prepd. from the mixed polyester, an epsilon.-caprolactam polyester of mol. wt. 2300, a polyester of ethylene

**glycol** (V), III, and I with a mol. wt. of 2000, poly(oxypropylene) **glycol** of mol. wt. 2000 or 1000, or a polyester of V and I of mol. wt. 2000 with II, an adduct of II and tetraethylene **glycol** (VI), an isomeric mixt. of tolylene **diisocyanate** or 1,6-hexamethylene **diisocyanate** (VII), and III, diethylene **glycol**, or VI in the same solvents. The Shore A hardness of the products varied from

38 to 87. A soln. of the polyaddn. products (100 parts) was mixed with 5-57 parts of a crosslinking agent, e.g. a 75% soln. of trimethylolpropane

and 2,4-tolylene **diisocyanate** (VIII) in EtOAc, VIII, a 75% soln. of the biuret **triisocyanate** of VII in EtOAc and xylene, a 20% soln. of tris(4-**isocyanatophenyl**) thiophosphate in CH<sub>2</sub>Cl<sub>2</sub>, paraformaldehyde, dimethylolhexahydropyrimidinone, hexamethoxymethylamine (sic), or ethylenediamine, with dimethylbenzylamine, Bu<sub>2</sub>Sn dilaurate, stannous octoate, maleic acid, HCl, or ClCH<sub>2</sub>CO<sub>2</sub>H in 9-180 parts of one of

the nonsolvents, white spirit b. 100-40.degree., Bu<sub>2</sub>O, EtOH, or n-C<sub>7</sub>H<sub>16</sub> to give a porous film with a H<sub>2</sub>O-vapor permeability of 0.2-31 mg./hr./cm.<sup>2</sup> Substrates used were Perlon fleece, split leather, or cotton plush.

L7 ANSWER 15 OF 22 CAPLUS COPYRIGHT 2001 ACS  
ACCESSION NUMBER: 1968:444386 CAPLUS  
DOCUMENT NUMBER: 69:44386  
TITLE: Neo carboxylate tetrol diphosphites and **polymers** for flameproof polyurethane foams  
PATENT ASSIGNEE(S): Pure Chemicals Ltd.  
SOURCE: Brit., 7 pp.  
CODEN: BRXXAA  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1118559		19680703		

PRIORITY APPLN. INFO.: US 19651023  
AB P-contg. polyols (I), which give increased fire retardancy to polyurethane rigid foams, are prepd. from (PhO)<sub>3</sub>P, HOCH<sub>2</sub>CMe<sub>2</sub>CO<sub>2</sub>CH<sub>2</sub>CMe<sub>2</sub>CH<sub>2</sub>OH (Ester diol 204) (II), and an alkylene **glycol** in a mole ratio of 2:1:4.15 (slight excess). Thus, a mixt. of (PhO)<sub>3</sub>P 620, II 204, dipropylene **glycol** (III) 560, and PhONa catalyst 10 g. was heated to 120-30.degree., while removing PhOH via a 10-plate fractionation column at 15 mm. Near the end of the reaction, pressure was lowered to 5 mm. in order to remove excess III. The residue as treated with attapulgus clay and a filter aid and filtered hot to yield 790 g. (HORO)<sub>2</sub>POCH<sub>2</sub>CMe<sub>2</sub>CO<sub>2</sub>CH<sub>2</sub>CMe<sub>2</sub>CH<sub>2</sub>OP(OROH)<sub>2</sub>, where R is a residue from III (IV), OH-no. 277-83. Higher-mol.-wt. I were prepd. by heating IV to 150.degree. in vacuo to remove III. I similar to IV were prepd. by substituting triethylene **glycol** for III. A mixt. of IV 2.4, H<sub>2</sub>O 0.37, Bu<sub>2</sub>Sn dilaurate 0.07, poly(dimethylsiloxane) 0.12, and

N-ethylmorpholine 1 g. was combined with 5.2 g. **polyene disocyanate** to produce a rigid foam, which was self-extinguishing and resistant to hydrolysis.

L7 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2001 ACS  
ACCESSION NUMBER: 1968:79551 CAPLUS  
DOCUMENT NUMBER: 68:79551  
TITLE: Prevention of sticking of elastomeric fibers  
PATENT ASSIGNEE(S): Algemene Kunstzijde Unie N. V.  
SOURCE: Neth. Appl., 7 pp.  
CODEN: NAXXAN  
DOCUMENT TYPE: Patent  
LANGUAGE: Dutch  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6704804		19670626	NL	19670405

AB Sticking of spandex fibers in the final heat treatment can be prevented by addn. of poly(dimethylsiloxane) to the coagulation bath. Thus, a mixt. of poly(tetramethylene oxide) **glycol** (mol. wt. 2000) 180, 4,4'-diphenylmethane **disocyanate** (I) 15, and trimethylolpropane 1.4 parts was stirred and heated at 75.degree. for 3 hrs., after which an addnl. 33.8 parts I was added and heating was contd. 80.degree. for 2 hrs. This prepolymer was spun into a soln. of ethylenediamine in toluene (30 g./l.) and the coagulated fibers were passed through a bath contg. 40 g. poly(dimethylsiloxane) in 1 l. toluene. Drying at 90.degree. and heat treating at 200.degree. resulted in free, nonsticking filament bundles.

L7 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2001 ACS  
ACCESSION NUMBER: 1968:77721 CAPLUS  
DOCUMENT NUMBER: 68:77721  
TITLE: Poly(oxyalkylene) **diisocyanates**  
INVENTOR(S): Hartzell, Gordon E.  
PATENT ASSIGNEE(S): Dow Chemical Co.  
SOURCE: U.S., 2 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3370077	A	19680220	US 1964-374830	19640612

AB Poly(oxyalkylene) **glycol** bis(**isocyanatoalkyl**) ethers were prepd. by treating poly(oxyalkylene) diamines with COCl<sub>2</sub>. They are useful in prepg. polyurethanes and polyureas of novel structure, as crosslinking or bonding agents, and as active components of adhesive mixts. for unlike components. Thus, a soln. of 350 g. bis(3-aminopropyl) ether of poly(oxypropylene) **glycol** of 1200 mol. wt. in 1750 ml. xylene was satd. with dry HCl, heated to 125.degree., and treated with 206 g. COCl<sub>2</sub> during 3.5 hrs. The xylene was distd. under reduced pressure to yield 364 g. bis(3-**isocyanatopropyl**) ether of the polyglycol with an av. mol. wt. of 1700-1800. Then 61.7 g. **polyether disocyanate** product was stirred for 10 min. at 100.degree. and 1-2 mm. Hg and treated with 8.4 g. molten 4,4'-methylenebis(2-chloroaniline). The mixt. was poured into a steel mold and cured for 4 hrs. at 100.degree.

to produce an elastomer with a Shore A hardness of 24, a tensile strength of 131 psi., and 250% elongation at break. An elastomer with similar properties was prepd. by treating the **diisocyanate** with tris-(hydroxypropyl) ether glycerol.

L7 ANSWER 18 OF 22 CAPLUS COPYRIGHT 2001 ACS  
ACCESSION NUMBER: 1968:13794 CAPLUS  
DOCUMENT NUMBER: 68:13794  
TITLE: Compositions for plugging off encroaching water in underground formations  
INVENTOR(S): Ingraham, Joe B.; Gibson, Daniel L.; Kucera, Clare H.  
PATENT ASSIGNEE(S): Dow Chemical Co.  
SOURCE: U.S., 6 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3336979		19670822	US	19650726

AB The title compns. can be used in oil or gas wells, mines, reservoirs, excavations for buildings and other structures, etc., to prevent encroachment of H2O through fissures or fractures. The compn. is a mass of discrete particles, each of which comprises a hard core nucleus, an interlayer of a colloid-forming, H2O-dispersible animal protein adhesive, and an outer coating of a H2O-insol., H2O-swellaable **polymer**. Thus, 908 g. of 20-40-mesh sand was mixed with 10 ml. of a 20% by wt. aq. dispersion of casein in a ribbon blender. The blender was rotated at 120 rpm. for 2 min. Then 40 g. of the **polymer** (100-120 mesh) was prepd. by copolymerizing a polyglycol mixed with tolylene **disocyanate**. This **polymer** is H2O-insol. and H2O-swellaable. The **polymer** swelled momentarily when it first came in contact with the aq. portion of the casein adhesive, but decreased to its original vol. The **polymer** is mixed for 1 min., then removed from the blender and dried at room temp. for 30 min. Discrete particles consisting of sand grain nuclei, an interlayer of casein, and an outer layer coating of **polymer** resulted. The **polymer** -coated sand was tested as a effective H2O-plug material. Crosslinked polyacrylamide or a copolymer of a **glycol** and a **diisocyanate** are preferred.

L7 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2001 ACS  
ACCESSION NUMBER: 1967:56411 CAPLUS  
DOCUMENT NUMBER: 66:56411  
TITLE: 2-Amino-2-methylpropanol as crosslinking agent for polyurethan elastomers  
INVENTOR(S): Carter, Russell Paul, Jr.  
PATENT ASSIGNEE(S): Goodyear Tire and Rubber Co.  
SOURCE: U.S., 3 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3296156		19670103	US	19621001

AB The prepn. of soft, crosslinked polyurethane elastomers of optimum strength, to which fillers can be added to increase hardness, is described. The elastomers are crosslinked with 2-amino-2-methylpropanol

(I), which has improved pot life with certain **disocyanates**, and can be used to make an injection-molding compn. The elastomers are prepd. from an excess of an org. **disocyanate** with a reactive H-contg. **polymer** of mol. wt. .gtoreq.500, and then the excess **polyisocyanate** groups are crosslinked. Thus, an ethylene adipate polyester (II), carboxy no. <5, was degassed under vacuum at 100.degree., then 116 parts tolidene **diisocyanate** was added to 500 parts II. The mixt. was treated 30 min. at 120.degree. with 0.1 part Et3N. Then, 17 parts I was added and the mixt. was stirred for 2 min. and then was poured into a tray to form a sheet. The tray was heated at 115.degree. for 20 hrs. to give elongation 610%, 100% modulus 323, 300% modulus 568, 500% modulus 2181, Shore A hardness 57, crescent teat 313/in., British Standard abrasion 192, smear point 361.degree.F., and compression set 67.7%. Similarly, polyurethans were prepd. with polytetramethylene **glycol** and tolylene **diisocyanate**, an ethylene adipate-propylene adipate mixt. and 3,3' methyl-4,4' phenylene **diisocyanate**, ethylene, propylene adipate, ethylene adipate, and methylenebis (phenylene **isocyanate**).

L7 ANSWER 20 OF 22 CAPLUS COPYRIGHT 2001 ACS  
 ACCESSION NUMBER: 1967:47272 CAPLUS  
 DOCUMENT NUMBER: 66:47272  
 TITLE: **Polymer**-impregnated impermeable sheet material  
 INVENTOR(S): Pagliaro, Ernest H.  
 PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co.  
 SOURCE: Belg., 28 pp.  
 CODEN: BEXXAL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 671914		19660505		

PRIORITY APPLN. INFO.: US 19651106

AB The title material was prepd. by impregnating a porous support with a linear **polymer** contg. units of org. **disocyanate** poly(ether **glycol**) and a diamine. Thus, poly(ethylene terephthalate) fabric was perforated by a needle mills to give a thickness of 18 mm. and a d. of 0.045. The cloth was shrunk 67-71% by passage through 2 water baths, the 1st at 64-5.degree. and the 2nd at 71-2.degree., to give a cloth with a thickness of 5-6.25 mm. and a d. of 0.17-0.23. A mixt. of 3343 parts poly(tetramethylene ether **glycol**) and 291 parts 2,4-toluene **diisocyanate** was heated for 3 hrs. at 90.degree., and the dimer obtained was mixed with 570 parts methylene-bis(4-phenyl **isocyanate**) and heated at 80.degree. for 1 hr. to give a prepolymer with terminal **isocyanate** groups. A soln. of the prepolymer in 10,000 parts HCONMe2 was added slowly to a soln. of 50 parts N2H4.H2O and 0.5 part Bu2NH in 1710 parts HCONMe2, and the mixt. was heated at 80.degree. for 40 min. to give a **polymer** with a viscosity of 115 poises. The **polymer** (10.85 parts) was mixed with 1.8 parts of a vinyl chloride-vinyl acetate resin, 0.65 part of a vinyl chloride-vinyl acetate resin modified by OH groups, 1.2 parts finely divided SiO2, and 74.67 parts HCONMe2, and 10.83 parts of a HCONMe2-H2O mixt. (70:30) was added to form a dispersion with a Brookfield dispersion of 15-20 poises. The cloth prepd. as described above was impregnated with the **polymer** soln. at 38.degree. and dried at 143.degree. to give a flexible porous sheet with a d. of 2280 g./m.2 and a



tensile strength at 5% elongation of 0.35-10.5 kg./cm.2 The sheets were split into pieces 0.1125 cm., 0.1875 cm., and 0.3125 cm. thick. A prepolymer was prepd. by heating 1000 parts poly(tetramethylene ether glycol (mol. wt. 1000) and 348 parts 2,4-tolylene diisocyanate at 80.degree. for 1-4 hrs. until the isocyanate group content was 6.3%. The prepolymer (100 parts) was treated with 13.7 parts Me Et ketoxime to give a blocked prepolymer (viscosity 10,000 cp. at 50.degree.). A mixt. of 45 parts blocked prepolymer, 43.2 parts MeCOEt, and 11.7 parts of a 50.degree. soln. of 4,4-methylenedianiline in MeCOEt was used to impregnate the porous sheets described above, which were then dried at 82, 127, and 149.degree. for 6 min. at each temp. The sheets were reimpregnated and redried to give impermeable sheets. The sheets 0.1125, 0.1875, and 0.3125 cm. thick had bursting strengths of 196, 22.75, and 37.5 kg./cm.2 and hydrostatic resistances of 2.8, 3.15, and 4.55 kg./cm.2, resp. After molding at 163.degree. and 175 kg./cm.2, the sheets had bursting strengths of 21, 25.2, and 52.5 kg./cm.2, resp., linear contractions of 4%, and Shore A hardnesses of 85-95 after 72 hrs. at 149.degree.. A laminate of 3 layers of impermeable sheets was used to prepare shoe soles and heels that lasted 3 times as long as those prepd. from leather.

L7 ANSWER 21 OF 22 CAPLUS COPYRIGHT 2001 ACS  
ACCESSION NUMBER: 1967:19270 CAPLUS  
DOCUMENT NUMBER: 66:19270  
TITLE: Polyurea dispersions  
INVENTOR(S): Mueller, Erwin  
PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.  
SOURCE: Brit., 4 pp.  
CODEN: BRXXAA  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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GB 1044267		19660928		

PRIORITY APPLN. INFO.: DE 19630212  
AB A stable dispersion of a polyurea (I) in a liquid org. polyhydroxy compd. is prepd. by reaction of an org. diisocyanate, a primary diamine, a secondary-diamine, hydrazine, or difunctional hydrazide. The I obtained are improved thickeners, textile assistants, and dye modifiers not involving prior removal of solvent. For example, 52.2 parts by wt. tolylene diisocyanate (II) was added dropwise at room temp. with stirring to 1000 parts by wt. polypropylene glycol ether (III) (OH no. 56) after addn. of 15 parts by wt. N2H4.H2O. The temp. rose to 45.degree. and I formed as an emulsion. After stirring for 1 hr., the N2H4.H2O produced with H2O was distd. off at 120.degree. and 12 mm. to give a milky, viscous stable, emulsion of OH no. 81. Similarly, by using different ratios of II and III, stable emulsions of OH nos. 79, 78, and 51 were obtained. In other samples, the amines used were N-methyldipropylenetriamine and ethylenediamine.

L7 ANSWER 22 OF 22 CAPLUS COPYRIGHT 2001 ACS  
ACCESSION NUMBER: 1963:67263 CAPLUS  
DOCUMENT NUMBER: 58:67263  
ORIGINAL REFERENCE NO.: 58:11555e-f  
TITLE: Elastic segmented polymers

INVENTOR(S): Frazer, August H.; Shivers, Joseph C., Jr.  
 PATENT ASSIGNEE(S): E. I. du Pont de Nemours & Co.  
 SOURCE: 5 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	US 3071557		19630101	US	19580328

AB Polyurethan resins have improved stability if they are interrupted at frequent intervals by a **diisocyanate** with 3 alkyl substituents. Thus, 3 moles poly(tetramethylene ether) **glycol** with an av. mol. wt. of 1000 was condensed with 2 moles 2,4-tolylene **disocyanate**, then 12.5% by wt. of 2,4,6-trimethyl-1,3-phenylene **diisocyanate** (prepd. from the amine and COCl<sub>2</sub>, b0.65 103-7.degree., m. 58-60.degree.) is added. The addn. of N<sub>2</sub>H<sub>4</sub> and spinning from MeCONMe<sub>2</sub> soln. gives elastomeric fibers with good strength. Similar results are obtained with 2,4,6-triisopropyl-1,3-phenylene **diisocyanate**, prepd. as above, b0.125 100.degree.. Resistance to discoloration in a Fade-O-Meter is superior to conventional **polymers**.

=> D HIS

(FILE 'HOME' ENTERED AT 09:28:19 ON 19 NOV 2001)

FILE 'MEDLINE' ENTERED AT 09:30:45 ON 19 NOV 2001

L1 0 S DIISOCYANATE/CT

FILE 'EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS, LIFESCI, MEDLINE' ENTERED AT 09:34:00 ON 19 NOV 2001

L2 187 S DIISOCYANATE/CT

FILE 'CAPLUS' ENTERED AT 09:34:57 ON 19 NOV 2001

E DIISOCYANATE/CT

E E2+ALL

E ?CYANATE/CT

E PEG/CT

E POLYETHYLENE GLYCOL/CT

E E3+ALL

L3 1456875 S POLYETHERS OR MACROMOLECULAR COMPOPUND? OR POLYETHER? OR POLY

L4 63160 S L3 AND ?CYANAT?

L5 40 S L4 AND DISOCYANAT?

L6 0 S L5 AND PEG

L7 22 S L5 AND GLYCOL

=> S ?ISOCYANAT

L8 11 ?ISOCYANAT

=> S L8 AND L7

L9 0 L8 AND L7

=> D HIS

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L6 0 S L5 AND PEG

L7 22 S L5 AND GLYCOL

L8 11 S ?ISOCYANAT

L9 0 S L8 AND L7

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COST IN U.S. DOLLARS

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TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

79.88

89.84

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

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-12.94

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